



April 27, 2017

1516 Ninth Street
Art Rosenfeld Hearing Room – First Floor
Sacramento, California 95814

10 a.m.

(Wheelchair Accessible)

THE COMMISSION WILL CONSIDER AND MAY TAKE ACTION ON THE FOLLOWING ITEMS:

1. CONSENT CALENDAR. (Items on the Consent Calendar will be taken up and voted on as a group. A commissioner may request that an item be moved and discussed later in the meeting.)
 - a. ~~PROPOSED REVISIONS TO THE NEW SOLAR HOMES PARTNERSHIP GUIDEBOOK, TENTH EDITION (NSHP GUIDEBOOK, TENTH EDITION).~~ Proposed resolution approving modifications to the New Solar Homes Partnership (NSHP) Guidebook, Tenth Edition. The NSHP Guidebook describes the requirements for participating in the NSHP program and receiving incentives for installing eligible solar energy systems on new residential construction located in specified investor-owned utility territories. Proposed changes to the NSHP Guidebook will update the reservation application and payment claim processes to reflect changes required by the statewide transition to the Financial Information System for California (Fi\$Cal) on July 1, 2017. In addition, staff proposes minor changes to the Established Installer Reservation Form and the Incentive Disclosure Affidavit that will satisfy requirements listed in the NSHP Guidebook. Contact: Geoffrey Dodson.
 - b. PROPOSED NON-SUBSTANTIVE CHANGES TO THE RENEWABLES PORTFOLIO STANDARD ELIGIBILITY GUIDEBOOK (RPS GUIDEBOOK), NINTH EDITION. Proposed resolution adopting non-substantive changes to the Renewables Portfolio Standard Eligibility Guidebook, Ninth Edition, adopted at the January 25, 2017, Business Meeting to correct typographical errors, update an incomplete URL, and remove an obsolete table reference. Contact: Camille Remy Obad.
2. ENERGY COMMISSION COMMITTEE APPOINTMENTS. Possible approval of appointments to the Energy Commission's Standing Committees and Siting Case Committees. Contact: Kevin Barker. (Staff presentation: 5 minutes)
3. 2016 DIVERSITY UPDATE REGARDING THE IMPLEMENTATION OF THE ENERGY COMMISSION DIVERSITY COMMITMENT. Contact: Alana Mathews. (Staff presentation: 20 minutes) Staff presentations outlining Energy Commission efforts to reach our Diversity Commitment to 1) increase participation of diverse business enterprises in our funding programs, and 2) increase the benefits of Commission programs and policy to disadvantaged communities. These include, but are not limited to the Energy

Commission's Electric Program Investment Charge (EPIC) Program, Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP), Clean Energy Jobs Program (Prop 39), and the New Solar Home Partnership Program.

4. ENERGY PROGRAM INVESTMENT CHARGE (EPIC) 2016 ANNUAL REPORT. Proposed resolution approving the EPIC 2016 Annual Report to the Legislature. Contact: Angie Gould. (Staff presentation: 10 minutes)
5. EPIC 2018 - 2020 TRIENNIAL INVESTMENT PLAN, FINAL REPORT. Proposed resolution approving the EPIC 2018 - 2020 Triennial Investment Plan, Final Report. This triennial investment plan presents the Energy Commission's strategy for administering approximately \$390 million to fund applied research and development, technology demonstration and deployment, and market facilitation from 2018 to 2020 under the EPIC Program. The California Public Utilities Commission (CPUC) EPIC Phase 2 Decision 12-05-037 established the purposes and governance of the EPIC Program funding and designated the Energy Commission as one of the four administrators of the EPIC Program. The Energy Commission's development work on the EPIC investment plan was conducted in accordance with Senate Bill 1018 (Chapter 39, Statutes of 2012), Senate Bill 96 (Chapter 356, Statutes of 2013), and the Energy Commission's broad authority under Public Resources Code Sections 25216(c) and 25401. As part of its consideration and adoption of the EPIC investment plan, the Energy Commission may suggest and adopt changes to the investment plan at the Business Meeting. In addition, the Energy Commission may authorize the Executive Director to file the adopted investment plan with the CPUC and to make adjustments to the plan as part of the CPUC EPIC proceeding. Contact: Laurie ten Hope. (Staff presentation: 15 minutes)
6. ADVANCED VEHICLE-GRID INTEGRATION RESEARCH AND DEMONSTRATION, GFO-16-303. This solicitation sought proposals to fund Applied Research & Development projects that effectively integrate plug-in electric vehicles (PEVs) into the electricity grid by enabling a higher mix of renewable resources, advancing the capabilities of PEVs, and improving the commercial viability of PEVs; and to fund Technology Demonstration & Deployment projects that provide and quantify multiple real-world benefits of advanced vehicle-grid integration (VGI) applications for PEV fleets. (EPIC funding) Contact: Matt Fung. (Staff presentation: 5 minutes)
 - a. ELECTRIC POWER RESEARCH INSTITUTE, INC. Proposed resolution approving Agreement EPC-16-054 with Electric Power Research Institute, Inc. in partnership with Gridscape Solutions and Flex Power Control, Inc. for a \$1,500,000 grant to develop a local energy management system that integrates bidirectional plug-in electric vehicle charging, photovoltaic energy generation, and stationary battery storage to provide greater grid stabilization capabilities.
 - b. ZECO SYSTEMS, INC. DBA GREENLOTS. Proposed resolution approving Agreement EPC-16-055 with Zeco Systems, Inc. dba Greenlots for an \$826,250 grant to develop smart charging control strategies to aggregate plug-in electric vehicles to balance direct current fast charging load demands with renewable energy over-generation.
7. ADDRESSING AIR QUALITY AND ENVIRONMENTAL IMPACTS OF CONVENTIONAL AND EMERGING ELECTRICITY SECTOR TECHNOLOGIES IN A CHANGING CLIMATE, GFO-16-306. This solicitation sought proposals to fund projects that will explore pathways to reduce the environmental, public health, and air quality impacts of electricity generation, distribution, and storage and improve overall resiliency of the electricity system. Additionally, funded projects will develop tools to

inform projections of climate change impacts on the energy sector and analyze the energy efficiency and climate impacts of alternative refrigerants.

- a. ZOOLOGICAL SOCIETY OF SAN DIEGO DBA SAN DIEGO ZOO GLOBAL. Proposed resolution approving Agreement EPC-16-053 with Zoological Society of San Diego dba San Diego Zoo Global for a \$499,605 grant to determine ideal habitat characteristics for release of captive-reared desert tortoises to offset impacts of renewable energy development. (EPIC Funding) Contact: David Stoms. (Staff presentation: 5 minutes)
 - b. UNIVERSITY OF CALIFORNIA, SAN DIEGO. Proposed resolution approving Agreement EPC-16-063 with The Regents of the University of California, San Diego Campus's Scripps Institution of Oceanography for a \$1,399,888 grant to develop better hybrid statistical-dynamical downscaling techniques to address issues focusing on impacts in the energy sector and renewable power and eventually plan for and adapt to climate change. The downscaling approach will regionalize global climate projections by taking into account California's topography. The hybrid downscaling techniques are focused on weather and climate phenomena which impact supply and demand in the energy sector, with particular emphasis on renewable power (wind and photovoltaic generation). (EPIC Funding) Contact: Guido Franco. (Staff presentation: 5 minutes)
8. 2016 NATURAL GAS ENERGY EFFICIENCY RESEARCH GRANTS FOR RESIDENTIAL AND COMMERCIAL BUILDINGS, GFO-16-502. This solicitation sought proposals to research, develop, validate, demonstrate and document advanced energy savings technologies and strategies to reduce natural gas use, greenhouse gas, and other emissions in the Buildings End-Use Sector. (PIER natural gas funding) Contact: Jeffrey Doll. (Staff presentation: 5 minutes)
- a. GARY KLEIN AND ASSOCIATES, INC. Proposed resolution approving Agreement PIR-16-020 with Gary Klein and Associates, Inc. for a \$249,900 grant to analyze and recommend practical solutions to improve hot water distribution systems and reduce natural gas and water use. The research will also identify future energy efficiency code changes to domestic hot water distribution systems to improve piping design and hot water distribution for new construction and existing buildings.
 - b. ELECTRIC POWER RESEARCH INSTITUTE, INC. Proposed resolution approving Agreement PIR-16-021 with Electric Power Research Institute, Inc. for a \$260,145 grant to develop and implement an analytical model to identify the most effective natural gas use reduction strategies for low-income multifamily communities in California.
 - c. DOE-LAWRENCE BERKELEY NATIONAL LABORATORY. Proposed resolution approving Agreement PIR-16-022 with the Department of Energy's Lawrence Berkeley National Laboratory for a \$250,000 grant to develop and implement an analytical model to quantify the relative costs and benefits of community-scale solar water heating systems in comparison to individual systems under a wide range of climate zones and conditions in California.
 - d. UNIVERSITY OF CALIFORNIA, LOS ANGELES. Proposed resolution approving Agreement PIR-16-023 with The Regents of the University of California, on behalf of the Los Angeles Campus's California Center for Sustainable Communities for a \$240,404 grant to investigate how community-scale solar water heating can reduce energy consumption (both natural gas and electricity) and greenhouse gas emissions for communities.

9. POSSIBLE APPROVAL OF AN ALTERNATIVE PROCEDURE FOR AIR DUCT LEAKAGE FIELD VERIFICATION. Proposed resolution approving an alternative procedure under Section 10-109(h) of the 2016 Building Energy Efficiency Standards that would allow a certified acceptance test technician, in lieu of a Home Energy Rating System rater, to perform the air duct leakage field verification required by Step 2 of Reference Nonresidential Appendix NA7.5.3.2. Contact: Joe Loyer. (Staff presentation: 5 minutes)
10. CITY OF FREMONT. Proposed resolution finding that the City of Fremont's locally adopted energy standards will require buildings to be designed to consume no more energy than permitted by the 2016 Building Energy Efficiency Standards. The City of Fremont's locally adopted energy standards will require a reduction of the outdoor lighting wattage for some applications in new buildings and alterations of 50 percent or more of existing lighting in non-residential occupancies. Contact: Ingrid Neumann. (Staff presentation: 5 minutes)
11. CITY OF MILL VALLEY. Proposed resolution finding that the City of Mill Valley's locally adopted energy standards will require buildings to be designed to consume no more energy than permitted by the 2016 Building Energy Efficiency Standards. The City of Mill Valley's locally adopted energy standards will require all new single family residential occupancies to be designed to use 15 percent less energy than the allowed energy budget established by the 2016 Standards by meeting the voluntary CALGreen Tier 1 requirements and all new low rise multifamily residential buildings to be designed to use 10 percent less energy than the allowed energy budget established by the 2016 Standards. Contact: Ingrid Neumann. (Staff presentation: 5 minutes)
12. CITY OF NOVATO. Proposed resolution finding that the City of Novato's locally adopted energy standards will require buildings to be designed to consume no more energy than permitted by the 2016 Building Energy Efficiency Standards. The City of Novato's locally adopted energy standards will require all new low rise residential occupancies to meet the voluntary CALGreen Tier 1 requirements. Contact: Ingrid Neumann. (Staff presentation: 5 minutes)
13. KEMA, INC. Proposed resolution approving Agreement 800-16-004 with Kema, Inc. (a member within DNV GL family of companies) for a \$2,692,841 contract to begin the 2017 Residential Appliance Saturation Survey (RASS). This effort will support the Energy Commission's electricity and natural gas demand forecast through a survey of representative households to gather data on appliances, energy-consuming equipment, and consumption patterns. The total contract budget consists of \$1,500,000 in ERPA funding and up to \$1,192,841 contingent upon other non-ERPA funding becoming available. Contact: Troy Dorai. (Staff presentation: 5 minutes)
14. COMMUNITY-SCALE AND COMMERCIAL-SCALE ADVANCED BIOFUELS PRODUCTION FACILITIES, GFO-15-606. This solicitation sought proposals to fund low carbon biofuel production projects at new and existing biofuel production facilities; existing biofuel production facilities must expand or modify facilities to increase production capacity. Eligible biofuels are diesel substitutes, gasoline substitutes, and biomethane, as defined in the solicitation. (ARFVTP funding) Contact: Hieu Nguyen. (Staff presentation: 5 minutes)
 - a. SJV BIODIESEL, LLC. Proposed resolution approving Agreement ARV-16-018 with SJV Biodiesel, LLC (SJV) for a \$3,600,000 grant to build a 5,065,085 per year diesel gallon equivalent biodiesel plant, which will be integrated into an existing ethanol plant. The proposed project will process the inedible oil it extracts from producing ethanol, along with high free fatty acid waste oils that

traditional biodiesel facilities cannot economically process. By employing commercially proven, next generation, SUPER™ (supercritical) technology, SJV's approach will overcome limitations inherent in traditional, chemically catalyzed biodiesel processing. This innovative, ground-breaking biodiesel facility will be thermally integrated into the ethanol plant to reduce energy consumption, resulting in biodiesel with a carbon intensity of 13.93 gCO₂e/MJ or less.

- b. NEW LEAF BIOFUEL, LLC. Proposed resolution approving Agreement ARV-16-020 with New Leaf Biofuel, LLC for a \$3,787,920 grant to upgrade and expand existing production of ultra-low-carbon biodiesel employing third-generation continuous production technologies including an innovative, reusable, solid, heterogeneous esterification catalyst. Expanding capacity from 5 to 12 million gallons per year will enable New Leaf Biofuel to increase production; accept a variety of feedstocks with low carbon intensities; reduce the plant's overall waste streams, water consumption, and per-gallon operating costs; while enhancing methanol recovery and coproduct quality in comparison to the existing system in San Diego.
15. **Minutes:** Possible approval of the April 12, 2017 Business Meeting minutes.
16. **Lead Commissioner or Presiding Member Reports.** A Lead Commissioner on a policy matter may report to the Commission on the matter and discussion may follow. A Presiding Member on a delegated committee may report to the Commission on the matter and discussion may follow.
17. **Chief Counsel's Report:** Pursuant to Government Code section 11126(e), the Energy Commission may adjourn to closed session with its legal counsel to discuss any of the following matters to which the Energy Commission is a party:
- a. *In the Matter of U.S. Department of Energy (High Level Waste Repository), (Atomic Safety Licensing Board, CAB-04, 63-001-HLW).*
 - b. *Communities for a Better Environment and Center for Biological Diversity v. Energy Commission* (Court of Appeal, First Appellate District, # A141299).
 - c. *Energy Commission v. SoloPower, Inc. and SPower, LLC.* (Sacramento County Superior Court # 34-2013-00154569)
 - d. *Energy Commission v. Electricore, Inc. and ZeroTruck* (Sacramento County Superior Court #34-2016-00204586)
- Pursuant to Government Code section 11126(e), the Energy Commission may also discuss any judicial or administrative proceeding that was formally initiated after this agenda was published; or determine whether facts and circumstances exist that warrant the initiation of litigation, or that constitute a significant exposure to litigation against the Commission, which might include:
- a. Claims filed at, and rejected by, the Victim Compensation and Government Claims Board against a number of defendants including the Energy Commission relating to the gas leak at Aliso Canyon.
 - b. The U.S. Department of Energy's actions to delay effective dates and failures to complete certain energy conservation standards and test procedures for appliances.
18. **Executive Director's Report.**
19. **Public Adviser's Report.**

20. **Public Comment:** People may speak up to three minutes on any matter concerning the Energy Commission, with the exception of items appearing elsewhere on this agenda or items related to pending adjudicative (certification or enforcement) proceedings.

If you require special accommodations, contact Poneh Jones at 916-654-4425, five days before the meeting.

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Adjournment of Hearings and Meetings: Depending upon time available and the orderly management of proceedings, the Commission may order adjournment (recess or postponement) of any noticed hearing or meeting, to be continued to the next day, another specific date or time, or to the next business meeting, as appropriate. Any such adjournment will be noticed at the time the order of adjournment is made (Government Code §§11128.5, 11129).